

**Amendments to Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. – 19. (Canceled).

20. (Currently Amended) A system for performing a maintenance test between LAN connecting devices in which a plurality of LAN connecting devices that perform only communication signal processing from a layer 1 to a layer 2 of an OSI layer are connected to each other through a circuit using an optical fiber as a physical medium configured such that communication is possible between the LAN connecting devices using an optical signal of a first ~~input/output~~ wavelength used in ordinary LAN communication and an optical signal of a second ~~input/output~~ wavelength used in maintenance test communication relating to communication on said circuit connecting the LAN connecting devices to each other,

wherein one of said LAN connecting devices comprises:

an optical multiplexer for collecting/multiplexing the optical signal of said first ~~input/output~~ wavelength and the optical signal of said second ~~input/output~~ wavelength and transmitting the collected optical signals to said circuit;

a first communication data control part for performing ordinary LAN communication processing, converting the communication data outputted by the LAN communication processing into the optical signal of said first wavelength through a first optical module, and outputting the converted communication data ~~outputted by the LAN communication processing in the optical signal of said first input/output wavelength~~ to said optical multiplexer; and

a first maintenance data control part for constructing maintenance data instructing the maintenance test processing to the other of said LAN connecting devices with a frame format ~~the~~ signal of the layer 2 of the OSI layer so as to perform the maintenance test processing ~~different from said LAN communication processing,~~ converting the maintenance data into the optical signal of said second wavelength through a second optical module, and outputting the converted maintenance data in the optical signal of said second ~~input/output~~ wavelength to said optical collector, and

wherein the other of said LAN connecting devices comprises:

an optical demultiplexer for separating/demultiplexing the optical signal transmitted by said circuit to said first ~~input/output~~ wavelength and said second ~~input/output~~ wavelength and distributing/outputting the separated first ~~input/output~~ wavelength and the second ~~input/output~~

wavelength;

a second communication data control part for performing the ordinary LAN communication processing by input of said communication data obtained by converting in the optical signal of said first input/output wavelength distributed/outputted by said optical demultiplexer into an electric signal through a third optical module; and

a second maintenance data control part for performing the maintenance test processing of the device itself by input of said maintenance data which is constructed by a frame format the signal of the layer 2 of the OSI layer, the frame format obtained by converting by the optical signal of said second input/output wavelength distributed/outputted by said optical demultiplexer into an electric signal through a fourth optical module,

wherein said LAN connecting device performs the maintenance processing by communication by the optical signal of said second input/output wavelength of said maintenance data constructed by the frame format signal of the layer 2 of the OSI layer.

21. – 29. (Canceled).

30. (Currently Amended) A LAN connecting device having a function to be connected to a LAN and a function to perform only communication signal processing from a layer 1 to a layer 2 of an OSI layer, being connected to its opposite party LAN connecting device through a circuit using an optical fiber as a physical medium and being capable of communicating with said opposite party LAN connecting device using an optical signal of a first input/output wavelength used in ordinary LAN communication and an optical signal of a second input/output wavelength used in maintenance test communication relating to communication on said circuit, comprising:

an optical demultiplexer for separating/demultiplexing the optical signal transmitted by said circuit to said first input/output wavelength and said second input/output wavelength and distributing/outputting the separated first input/output wavelength and second input/output wavelength;

a communication data control part for performing the ordinary LAN communication processing by input of said communication data obtained by converting by the optical signal of said first input/output wavelength distributed/outputted by said optical demultiplexer into an electrical signal through a first optical module; and

a maintenance data control part performing the maintenance test processing of the device itself by input of said maintenance data which is constructed by a frame format the signal of the layer 2 of the OSI layer, the frame format obtained by converting by the optical signal of said second

~~input/output~~ wavelength distributed/outputted by said optical demultiplexer into an electric signal through a second optical module,

wherein said maintenance test processing is performed by communication by the optical signal of said second ~~input/output~~ wavelength of said maintenance data constructed by the frame format signal of the layer 2 of the OSI layer with the opposite party LAN connecting device.

31. – 38. (Canceled).

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